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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/642,529	08/15/2003	Joseph P. Errico	SPINE 3.0-437 P P P P P C VI	3170
530 7590 02/11/2009 LERNER, DAVID, LITTENBERG, KRUMHOLZ & MENTLIK 600 SOUTH AVENUE WEST WESTFIELD, NJ 07090			EXAMINER PELLEGRINO, BRIAN E	
			ART UNIT 3738	PAPER NUMBER
			MAIL DATE 02/11/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/642,529	Applicant(s) ERRICO ET AL.	
	Examiner Brian E. Pellegrino	Art Unit 3738	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21,23-30 and 41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21,23-30 and 41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/18/08 has been entered.

Claim Objections

Claim 28 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The limitation that the "contact element has a resting shape of a dome convexly extending from the spacer body" adds no further feature to the claims, since this has been claimed in claim 21.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim 21,23,24,26-30,41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baumgartner (5370697) in view of Krebs et al. (5926685).

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Baumgartner shows (Fig. 5) a vertebral contact element **44** on the exterior surfaces having a resting shape of a dome convexly extending from an orthopedic device **2** such that a gap is formed between the central portion of the contact element or mesh and the exterior surface of the baseplate. Baumgartner discloses the contact element is a wire mesh (col. 3, lines 54-57) that is porous. The mesh is fully capable of having a convexity depth or footprint approximating the depth of a concave surface in a vertebrae.

However, Baumgartner fails to disclose the outer surface having a groove or an osteoconductive feature, such as a coating for attaching the exterior contact element.

Krebs et al. teach (Fig. 8A) that a groove is disposed in an implant surface to secure a mesh **40** using a coating. Krebs also teaches that the perimeter or contact surface of the mesh, along with the groove in the implant surface are coated to attach the two elements together, col. 6, lines 40-46, 52-56. Krebs et al. teach that a coating or binder is used to secure a metal mesh to the surface of the implant, col. 2, lines 14, 17, 36-39.

It would have been obvious to one of ordinary skill in the art to incorporate a groove in the exterior surface to retain the perimeter or surface of the mesh that contacts the implant surface therein as taught by Krebs et al. and utilize a coating or binder held in a groove also taught by Krebs et al. with the implant of Baumgartner such that exterior surface modifications secure the mesh to the implant stronger and eliminates any detachment of the mesh from the baseplates.

Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baumgartner '697 in view of Krebs et al. '685 as applied to claim 21 above, and further in view of Koch et al. (4969907). Baumgartner in view of Krebs et al. is explained

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above. However, Baumgartner as modified by Krebs et al. fail to disclose the coating is a plasma spray. Koch et al. teach an implant **1** body's exterior surface has a coating **5** to secure a contact element **6**. Koch also teaches that the coating secures the implant to the contact element and can be a plasma spray, col. 2, lines 3-6,44-48. It would have been obvious to one of ordinary skill in the art to alternatively use a plasma spray coating to retain a mesh to an implant surface as taught by Koch et al. with the mesh secured to the implant of Baumgartner as modified by Krebs et al. such that it allows the coating to be applied to the baseplates at the desired location.

Response to Arguments

Applicant's arguments with respect to claim 21 have been considered but are moot in view of the new ground(s) of rejection. However, Applicant's arguments filed 11/18/08 have been fully considered but they are not persuasive regarding the interpretation of the claims over the Baumgartner reference. The first argument the Examiner would like to address is the fact that the mesh of Baumgartner may become secured to the bone, well that may be true, but is not that the objective of Applicant's mesh too? It appears to be the objective of Applicants' invention as understood by paragraph 28 of the specification. The second point made by Applicants is that a groove would not be considered obvious to incorporate on the exterior surface of the baseplate of Baumgartner. However, the Examiner is not persuaded because one of ordinary skill would look to improve upon what is known in the art and that involves attachment or fixation of elements to implant surfaces. While the mesh is attached to

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the surface of Baumgartner's baseplates, what is not considered in Baumgartner is to prevent any lateral displacement of the mesh on the implant's exterior surface. The incorporation of a groove would accomplish this objective and enhance the attachment of the mesh to the implant surface by preventing lateral movement. Thus, one of ordinary skill in the art in considering what Krebs teaches (a groove and coating) would be obvious to modify and use in the Baumgartner device. In response to Applicant's argument that Baumgartner supposedly includes additional structure (cross-hatching below the mesh and between the baseplate) not required by Applicant's invention, it must be noted that Baumgartner as modified by Krebs et al. discloses the invention as claimed. The fact that it discloses additional structure not claimed is irrelevant to the issue of patentability. Applicant argues there is no "gap" in the space between the mesh of Baumgartner and the baseplate. However, this is contradictory since Applicants began to argue there is an element in the spacing. Thus, there must be a "gap". The claim does not state that there is an empty space or open area, it just claims a "gap" which does not exclude elements being in the space. The Examiner is not admitting that there is an element there between the space of the mesh and plate of Baumgartner's device, because the Examiner is of the position that it would have been stated by Baumgartner if the intention of having something there. Regardless, there is a "gap" between the domed mesh and plate and thus the reference teaches the claimed limitation. Applicants also argue that the mesh of Baumgartner does not teach the mesh being in an initial undeflected conformation. However, the Examiner would like to

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indicate that the specification fails to define what Applicants mean by "initial" and thus, Baumgartner can be said to initially form a domed configuration upon implantation.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian E. Pellegrino whose telephone number is 571-272-4756. The examiner can normally be reached on M- F (7am-5:30pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Corrine McDermott can be reached on 571-272-4754. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TC 3700
/Brian E Pellegrino/
Primary Examiner, Art Unit 3738